

We claim:

1. A system for harvesting crustaceans including

holding means for the housing of each crustacean in a separate compartment;
monitoring means for the automated monitoring of said crustaceans to determine whether they have molted; and

harvesting means for the removal of molted crustaceans from the holding means, wherein the monitoring means includes an automated camera means adapted to periodically take images of the crustaceans in the compartments, a processor with software which can receive and analyze the images to determine whether the crustacean has molted where a molted crustacean is indicated by the presence of two bodies in a compartment, and instruct the harvesting means to remove the molted crustacean from their compartment.

2. A system for harvesting crustaceans including

holding means for the housing of each crustacean in a separate compartment;
monitoring means for the automated monitoring of said crustaceans to determine whether they have molted; and

harvesting means for the removal of molted crustaceans from the holding means, wherein the monitoring means includes an automated camera means adapted to periodically take images of the crustaceans in the compartments, a processor with software which can receive and analyze the images to determine whether the crustacean has molted where a molted crustacean is indicated by the presence of two bodies in a compartment, and instruct the harvesting means to remove the molted crustacean from their compartment, said automated camera means is robotically mounted being able to move the camera into a suitable position for taking the image of the crustacean in each compartment.

3. A system for harvesting crustaceans including

holding means for the housing of each crustacean in a separate compartment;
monitoring means for the automated monitoring of said crustaceans to determine whether they have molted; and

harvesting means for the removal of molted crustaceans from the holding means, wherein the monitoring means includes an automated camera means adapted to periodically take images of the crustaceans in the compartments, a processor with software which can

receive and analyze the images to determine whether the crustacean has molted where a molted crustacean is indicated by the presence of two bodies in a compartment, and instruct the harvesting means to remove the molted crustacean from their compartment, said automated camera means is robotically mounted being able to move the camera into a suitable position for taking the image of the crustacean in each compartment, wherein there is feeding means operatively associated with the monitoring means, said feeding means includes a dispensing means which is mounted on the same robot as the camera means.

4. A system for harvesting crustaceans as claimed in claims 3 wherein the amount of food dispensed by the dispensing means ranges between 3% and 15% of the body weight of the crustacean.

5. A system for harvesting crustaceans as claimed in any one of claims 1 to 4 wherein the holding means includes a basket for containing a single crustacean and a tray for locating one or more baskets.

6. A system for harvesting crustaceans as claimed in any one of claims 1 to 4, wherein the holding means includes a basket for containing a single crustacean and a tray for locating one or more baskets, said basket is operatively complementary with the tray with a basket clean water inlet locatable adjacent the tray water inlet, a basket waste outlet locatable adjacent a tray floor recess, and inclined legs on the basket to maintain the floor of the basket substantially horizontal when the basket is positioned on the tray.

7. A system for harvesting crustaceans as claimed in any one of claims 1 to 4 wherein the holding means includes a basket for containing a single crustacean and a tray for locating one or more baskets, said basket is operatively complementary with the tray with a basket clean water inlet locatable adjacent the tray water inlet, a basket waste outlet locatable adjacent a tray floor recess, and inclined legs on the basket to maintain the floor of the basket substantially horizontal when the basket is positioned on the tray, wherein a plurality of trays is supported on a racking system which forms a modular system.

8. An automated system of farming and harvesting crustaceans including
modular housing means including a plurality of holding means supported on a racking system, said holding means houses each crustacean in a separate compartment;
monitoring means for the automated monitoring of said crustaceans to determine whether they have molted;
feeding means for the adding of food to each compartment; and
harvesting means for the removal of molted crustaceans from the holding means, wherein the monitoring means includes an automated camera means adapted to periodically take images of the crustaceans in the compartments, a processor with software which can receive and analyze the images to determine whether the crustacean has molted where a molted crustacean is indicated by the presence of two bodies in a compartment, and instruct the harvesting means to remove the molted crustacean from their compartment.

9. An automated system of farming and harvesting crustaceans as described in claim 8 wherein the holding means, monitoring means, feeding means and harvesting means are as described in any one of claims 1 to 8.

10. A method of farming and harvesting crustaceans using the system for harvesting crustaceans or the system for farming and harvesting crustaceans as claimed in any one of claims 1 to 9, including

obtaining a plurality of crustaceans;
positioning each of said crustaceans in individual holding means;
monitoring with the monitoring means each of said crustaceans to determine whether they have molted; and

harvesting with the harvesting means each of the molted crustaceans, wherein the monitoring involves using an automated camera means adapted to periodically take images of the crustaceans in the compartments, processing using a processor with software which can receive and analyze the images to determine whether the crustacean has molted where a molted crustacean is indicated by the presence of two bodies in a compartment, and instructing the harvesting means to remove the molted crustacean from their compartment.